

Title (en)

DEVICE DATA PROTECTION BASED ON NETWORK TOPOLOGY

Title (de)

VORRICHTUNGSDATENSCHUTZ BASIEREND AUF NETZWERKTOPOLOGIE

Title (fr)

PROTECTION DE DONNÉES DE DISPOSITIF BASÉE SUR LA TOPOLOGIE DU RÉSEAU

Publication

EP 3963867 A4 20230104 (EN)

Application

EP 20818380 A 20200528

Priority

- US 201916430663 A 20190604
- US 2020034838 W 20200528

Abstract (en)

[origin: US2020387614A1] Embodiments of the disclosure provide for a fast device installation and replacement (DI&R) service in a network while simultaneously providing confidentiality and integrity protection for sensitive device data. In one embodiment, this protection is provided by using certain characterization data associated with each device in a network to generate a passphrase. This passphrase can be related to the topology of the devices. In one embodiment, the passphrase is a concatenation of certain device characterization data with respect to the topology. In embodiments, the concatenation includes arranging the characterization data based on an order of each device with respect to the topology. Cryptographic keys are derived based on the passphrase. The cryptographic keys are used to automatically encrypt and decrypt the sensitive device data without user intervention. In one embodiment, the cryptographic keys are used to automatically decrypt the sensitive device data to configure a replacement device for the network.

IPC 8 full level

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CPC (source: EP US)

G06F 11/3072 (2013.01 - EP US); **G06F 21/575** (2013.01 - EP US); **G06F 21/602** (2013.01 - EP US); **G06F 21/64** (2013.01 - EP); **H04L 9/0643** (2013.01 - EP); **H04L 9/0863** (2013.01 - EP); **H04L 9/0866** (2013.01 - US); **H04L 9/0872** (2013.01 - EP); **H04L 9/3242** (2013.01 - EP US); **H04L 45/02** (2013.01 - EP US); **H04L 63/0428** (2013.01 - EP); **H04L 63/0435** (2013.01 - EP); **G06F 11/3409** (2013.01 - EP)

Citation (search report)

- [X1] US 2019140824 A1 20190509 - GAZIT RONEN [IL], et al
- [A] US 2014189362 A1 20140703 - VAN DEN BROECK ROELAND [BE], et al
- See references of WO 2020247228A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

US 11270005 B2 20220308; **US 2020387614 A1 20201210**; CN 113906715 A 20220107; EP 3963867 A1 20220309; EP 3963867 A4 20230104; WO 2020247228 A1 20201210

DOCDB simple family (application)

US 201916430663 A 20190604; CN 202080041321 A 20200528; EP 20818380 A 20200528; US 2020034838 W 20200528